SEQUENCE LISTING

<110> Osteryoung, Katherine W.

<120> Manipulation of Min Genes in Plants

<130> 920905.90041

<140>
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<150> 60/130,403
<151> 1999-04-19

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<170> PatentIn Ver. 2.1

<210> 1
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cca tca tct ctc tca caa aag act cta ata tct tca cca aga ttc gtc   96
Pro Ser Ser Leu Ser Gln Lys Thr Leu Ile Ser Ser Pro Arg Phe Val
            20                  25                  30

aat aac cct agc aga cgg agt cca ata cga tcc gtt ctt caa ttt aat   144
Asn Asn Pro Ser Arg Arg Ser Pro Ile Arg Ser Val Leu Gln Phe Asn
        35                  40                  45

cgc aaa ccg gaa ctc gcc gga gaa acg ccg cgt atc gtc gtt atc acc   192
Arg Lys Pro Glu Leu Ala Gly Glu Thr Pro Arg Ile Val Val Ile Thr
    50                  55                  60

tcc gga aaa ggc ggt gtt gga aag acg aca acc acc gca aat gtc ggt   240
Ser Gly Lys Gly Gly Val Gly Lys Thr Thr Thr Thr Ala Asn Val Gly
65                  70                  75                  80

ctc tct ctc gct cgt tac ggt ttc tca gtt gtc gcc att gac gcc gac   288
Leu Ser Leu Ala Arg Tyr Gly Phe Ser Val Val Ala Ile Asp Ala Asp
                85                  90                  95

ctt ggt ctc cgt aac ctc gat ctc ctc cta ggg tta gag aat cga gtc   336
Leu Gly Leu Arg Asn Leu Asp Leu Leu Leu Gly Leu Glu Asn Arg Val
            100                 105                 110
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aat tac act tgc gtc gag gtt ata aac gga gat tgt cgt ctc gat caa   384
Asn Tyr Thr Cys Val Glu Val Ile Asn Gly Asp Cys Arg Leu Asp Gln
        115                 120                 125

gct ctg gta cgt gat aag cgt tgg tcg aat ttc gaa ttg cta tgt ata   432
Ala Leu Val Arg Asp Lys Arg Trp Ser Asn Phe Glu Leu Leu Cys Ile
    130                 135                 140

tct aaa cct aga tcg aaa ctt ccg atg gga ttt ggt ggt aaa gca ttg   480
Ser Lys Pro Arg Ser Lys Leu Pro Met Gly Phe Gly Gly Lys Ala Leu
145                 150                 155                 160

gaa tgg ctt gtg gat gcg ttg aaa act aga ccg gaa ggt tca ccg gat   528
Glu Trp Leu Val Asp Ala Leu Lys Thr Arg Pro Glu Gly Ser Pro Asp
                165                 170                 175

ttc atc atc atc gat tgt cct gca gga atc gat gcc gga ttc ata acc   576
Phe Ile Ile Ile Asp Cys Pro Ala Gly Ile Asp Ala Gly Phe Ile Thr
            180                 185                 190

gcc att act ccg gcg aat gaa gca gtt ctg gta aca act ccg gat ata   624
Ala Ile Thr Pro Ala Asn Glu Ala Val Leu Val Thr Thr Pro Asp Ile
        195                 200                 205

aca gcg tta agg gat gct gat agg gtt acg ggt ttg tta gaa tgc gat   672
Thr Ala Leu Arg Asp Ala Asp Arg Val Thr Gly Leu Leu Glu Cys Asp
    210                 215                 220

gga atc aga gat ata aag atg att gtg aac aga gtg aga act gat atg   720
Gly Ile Arg Asp Ile Lys Met Ile Val Asn Arg Val Arg Thr Asp Met
225                 230                 235                 240

att aaa gga gag gat atg atg tca gtg tta gat gtg cag gag atg ttg   768
Ile Lys Gly Glu Asp Met Met Ser Val Leu Asp Val Gln Glu Met Leu
                245                 250                 255

gga ttg tca ttg ctt ggt gta att cct gaa gat tct gag gtt att cga   816
Gly Leu Ser Leu Leu Gly Val Ile Pro Glu Asp Ser Glu Val Ile Arg
            260                 265                 270

agc acg aat cga ggg ttt ccg ctt gtt ctg aat aag cct cct acg ctt   864
Ser Thr Asn Arg Gly Phe Pro Leu Val Leu Asn Lys Pro Pro Thr Leu
        275                 280                 285

gcg gga ttg gcg ttt gag cag gcg gct tgg aga ctc gtt gag caa gat   912
Ala Gly Leu Ala Phe Glu Gln Ala Ala Trp Arg Leu Val Glu Gln Asp
    290                 295                 300

agt atg aag gct gtt atg gtg gag gaa gaa cct aag aaa cgt ggc ttc   960
Ser Met Lys Ala Val Met Val Glu Glu Glu Pro Lys Lys Arg Gly Phe
305                 310                 315                 320

ttc tct ttc ttt ggc ggc                                          978
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            20                  25                  30

Asn Asn Pro Ser Arg Arg Ser Pro Ile Arg Ser Val Leu Gln Phe Asn
        35                  40                  45

Arg Lys Pro Glu Leu Ala Gly Glu Thr Pro Arg Ile Val Val Ile Thr
    50                  55                  60

Ser Gly Lys Gly Gly Val Gly Lys Thr Thr Thr Thr Ala Asn Val Gly
65                  70                  75                  80

Leu Ser Leu Ala Arg Tyr Gly Phe Ser Val Val Ala Ile Asp Ala Asp
                85                  90                  95

Leu Gly Leu Arg Asn Leu Asp Leu Leu Leu Gly Leu Glu Asn Arg Val
            100                 105                 110

Asn Tyr Thr Cys Val Glu Val Ile Asn Gly Asp Cys Arg Leu Asp Gln
        115                 120                 125

Ala Leu Val Arg Asp Lys Arg Trp Ser Asn Phe Glu Leu Leu Cys Ile
    130                 135                 140

Ser Lys Pro Arg Ser Lys Leu Pro Met Gly Phe Gly Gly Lys Ala Leu
145                 150                 155                 160

Glu Trp Leu Val Asp Ala Leu Lys Thr Arg Pro Glu Gly Ser Pro Asp
                165                 170                 175

Phe Ile Ile Ile Asp Cys Pro Ala Gly Ile Asp Ala Gly Phe Ile Thr
            180                 185                 190

Ala Ile Thr Pro Ala Asn Glu Ala Val Leu Val Thr Thr Pro Asp Ile
        195                 200                 205

Thr Ala Leu Arg Asp Ala Asp Arg Val Thr Gly Leu Leu Glu Cys Asp
    210                 215                 220

Gly Ile Arg Asp Ile Lys Met Ile Val Asn Arg Val Arg Thr Asp Met
225                 230                 235                 240

Ile Lys Gly Glu Asp Met Met Ser Val Leu Asp Val Gln Glu Met Leu
                245                 250                 255

Gly Leu Ser Leu Leu Gly Val Ile Pro Glu Asp Ser Glu Val Ile Arg
            260                 265                 270
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Ser Thr Asn Arg Gly Phe Pro Leu Val Leu Asn Lys Pro Pro Thr Leu
        275                 280                 285

Ala Gly Leu Ala Phe Glu Gln Ala Ala Trp Arg Leu Val Glu Gln Asp
    290                 295                 300

Ser Met Lys Ala Val Met Val Glu Glu Glu Pro Lys Lys Arg Gly Phe
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Phe Ser Phe Phe Gly Gly
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ctg agg ttt cta aca gaa ccc tca ctt gta tgc tca tcc act ttc ccc 106
Leu Arg Phe Leu Thr Glu Pro Ser Leu Val Cys Ser Ser Thr Phe Pro
      5                  10                  15

aca ttc aat ccc cta cac aaa acc cta act aaa cca aca cca aaa ccc 154
Thr Phe Asn Pro Leu His Lys Thr Leu Thr Lys Pro Thr Pro Lys Pro
 20                  25                  30                  35

tac cca aag cca cca cca att cgc tcc gtc ctt caa tac aat cgc aaa 202
Tyr Pro Lys Pro Pro Pro Ile Arg Ser Val Leu Gln Tyr Asn Arg Lys
                 40                  45                  50

cca gag ctc gcc gga gac act cca cga gtc gtc gca atc gac gcc gac 250
Pro Glu Leu Ala Gly Asp Thr Pro Arg Val Val Ala Ile Asp Ala Asp
             55                  60                  65

gtt ggt cta cgt aac ctc gat ctt ctt ctc ggt ctc gaa aac cgc gtc 298
Val Gly Leu Arg Asn Leu Asp Leu Leu Leu Gly Leu Glu Asn Arg Val
         70                  75                  80

aat tac acc gtc gtt gaa gtt ctc aac ggc gat tgc aga ctc gac caa 346
Asn Tyr Thr Val Val Glu Val Leu Asn Gly Asp Cys Arg Leu Asp Gln
     85                  90                  95

gcc cta gtt cgt gat aaa cgc tgg tca aat ttc gaa ttg ctt tgt att 394
Ala Leu Val Arg Asp Lys Arg Trp Ser Asn Phe Glu Leu Leu Cys Ile
100                 105                 110                 115

tca aaa cct agg tca aaa ttg cct tta gga ttt ggg gga aaa gct tta 442
Ser Lys Pro Arg Ser Lys Leu Pro Leu Gly Phe Gly Gly Lys Ala Leu
                120                 125                 130
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gtt tgg ctt gat gca tta aaa gat agg caa gaa ggt tgc ccg gat ttt   490
Val Trp Leu Asp Ala Leu Lys Asp Arg Gln Glu Gly Cys Pro Asp Phe
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ata ctt ata gat tgt cct gca ggt att gat gcc ggg ttc ata acc gcc   538
Ile Leu Ile Asp Cys Pro Ala Gly Ile Asp Ala Gly Phe Ile Thr Ala
        150                 155                 160

att aca ccg gct aac gaa gcc gta tta gtt aca aca cct gat att act   586
Ile Thr Pro Ala Asn Glu Ala Val Leu Val Thr Thr Pro Asp Ile Thr
    165                 170                 175

gca ttg aga gat gca gat aga gtt aca ggc ttg ctt gaa tgt gat gga   634
Ala Leu Arg Asp Ala Asp Arg Val Thr Gly Leu Leu Glu Cys Asp Gly
180                 185                 190                 195

att agg gat att aaa atg att gtg aac aga gtt aga act gat ttg ata   682
Ile Arg Asp Ile Lys Met Ile Val Asn Arg Val Arg Thr Asp Leu Ile
                200                 205                 210

agg ggt gaa gat atg atg tca gtt ctt gat gtt caa gag atg ttg gga   730
Arg Gly Glu Asp Met Met Ser Val Leu Asp Val Gln Glu Met Leu Gly
            215                 220                 225

ttg tca ttg ttg agt gat acc cga gga ttc gaa gtg att cgg agt acg   778
Leu Ser Leu Leu Ser Asp Thr Arg Gly Phe Glu Val Ile Arg Ser Thr
        230                 235                 240

aat aga ggg ttt ccg ctt gtg ttg aac aag cct ccg act tta gca gga   826
Asn Arg Gly Phe Pro Leu Val Leu Asn Lys Pro Pro Thr Leu Ala Gly
    245                 250                 255

ttg gca ttt gag cag gct gct tgg aga ttg gtt gag caa gat agc atg   874
Leu Ala Phe Glu Gln Ala Ala Trp Arg Leu Val Glu Gln Asp Ser Met
260                 265                 270                 275

aag gct gtg atg gtg gag gaa gaa cct aaa aag agg gga ttt ttc tcg   922
Lys Ala Val Met Val Glu Glu Glu Pro Lys Lys Arg Gly Phe Phe Ser
                280                 285                 290

ttt ttt gga ggt tagtgatcga attcgttgaa tcgttgagtt gggtttgttt       974
Phe Phe Gly Gly
            295

tggtggagaa atgtgtcttg tttgttcatg taggagctgc tatgtgtcac ttgaaatgtt 1034

atgtgtacag taagctgata aggattgttt taattcagtt ttcagagaga aaattagaat 1094

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            20                  25                  30

Pro Lys Pro Tyr Pro Lys Pro Pro Pro Ile Arg Ser Val Leu Gln Tyr
        35                  40                  45

Asn Arg Lys Pro Glu Leu Ala Gly Asp Thr Pro Arg Val Val Ala Ile
    50                  55                  60

Asp Ala Asp Val Gly Leu Arg Asn Leu Asp Leu Leu Leu Gly Leu Glu
65                  70                  75                  80

Asn Arg Val Asn Tyr Thr Val Val Glu Val Leu Asn Gly Asp Cys Arg
                85                  90                  95

Leu Asp Gln Ala Leu Val Arg Asp Lys Arg Trp Ser Asn Phe Glu Leu
            100                 105                 110

Leu Cys Ile Ser Lys Pro Arg Ser Lys Leu Pro Leu Gly Phe Gly Gly
        115                 120                 125

Lys Ala Leu Val Trp Leu Asp Ala Leu Lys Asp Arg Gln Glu Gly Cys
    130                 135                 140

Pro Asp Phe Ile Leu Ile Asp Cys Pro Ala Gly Ile Asp Ala Gly Phe
145                 150                 155                 160

Ile Thr Ala Ile Thr Pro Ala Asn Glu Ala Val Leu Val Thr Thr Pro
                165                 170                 175

Asp Ile Thr Ala Leu Arg Asp Ala Asp Arg Val Thr Gly Leu Leu Glu
            180                 185                 190

Cys Asp Gly Ile Arg Asp Ile Lys Met Ile Val Asn Arg Val Arg Thr
        195                 200                 205

Asp Leu Ile Arg Gly Glu Asp Met Met Ser Val Leu Asp Val Gln Glu
    210                 215                 220

Met Leu Gly Leu Ser Leu Leu Ser Asp Thr Arg Gly Phe Glu Val Ile
225                 230                 235                 240

Arg Ser Thr Asn Arg Gly Phe Pro Leu Val Leu Asn Lys Pro Pro Thr
                245                 250                 255

Leu Ala Gly Leu Ala Phe Glu Gln Ala Ala Trp Arg Leu Val Glu Gln
            260                 265                 270
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Asp Ser Met Lys Ala Val Met Val Glu Glu Glu Pro Lys Lys Arg Gly
        275                 280                 285

Phe Phe Ser Phe Phe Gly Gly
    290                 295
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